

**Abstract**

Schemes for computing performance parameters of fiber-optic gyroscopes (FOGs) using closed-loop transfer functions are described herein. In one embodiment, a method to compute a performance parameter of a FOG may include providing a closedloop transfer function based on optical components and electrical components of the FOG; based on the transfer function, determining a relationship between the performance parameter and at least one physical parameter associated with at least one component of the FOG; and, based on the relationship, computing the performance parameter.